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White Light Holography

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WHITE LIGHT HOLOGRAPHY

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Holography has had some attention in the recent past from people other than academia. Looking at your Visa card, you should see a form of a two-dimensional white light holographic picture. These pictures are hard to duplicate and, hence, can be used as a form of security. However, in recent years the diode laser has been demonstrated to produce holographic images. This has provided a new excitement among various groups, due to the easy access of the diode laser. Experiments that were once left to those with expensive equipment is no longer. A simple \$9.99 laser pointer (650nm) can demonstrate holographic wavefront superposition. High schools, middle schools, and are students now have easy access to such a device. This talk will focus on white light or volume holography as demonstrated with the traditional HeNe laser (632.8 nm). The talk will give a brief overview of holography using this laser system and the intricacies involved in producing a holographic image on an emulsion plate. There are a number of variables that determine the resolution of the image. Some of the most important are stability and film processing.